REMARKS

This Response is in reply to the Final Office Action rejection mailed on July 26, 2007. Claims 1 – 7 are pending in the application, with each of the claims being rejected.

The Applicants' attorney expresses appreciation to Examiner Jamares Washington and Supervising Patent Examiner King Poon for participating in a telephone interview on August 28, 2007 with David Hendricks of this office. During this interview, the basis of the claim rejections of the Final Office Action were discussed.

Claims 1, 2, and 5 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application 2003/0058474 (hereinafter Loce) in view of *Print Quality Metrics for Grayscale Text* (hereinafter Farrell). Loce discloses a method and apparatus for use in an image forming device to select and apply halftone screens that are compatible with text components based on certain characteristics of the text. A text component characteristic recognizer ascertains characteristics of the text such as font specification, font size, predominant angle of the text, and whether the text is italicized or bold. This information is communicated to a halftone screen selector which selects a halftone screen based on one or more of the recognized characteristics. The selection of a halftone screen is accomplished using predetermined threshold values programmed into or stored within the halftone screen selector. Loce does not disclose that a user may determine or input the threshold value.

Farrell discloses a study to evaluate the relationship between subjective ratings of print quality and two types of machine vision metrics. In general, machine vision systems utilize images obtained using optical sensors in order to process, analyze, and measure various characteristics so decisions can be made. The machine vision metrics studied were attribute metrics and image-based metrics. Attribute metrics include features that are known to affect print quality, such as optical ink density, jaggedness, and edge sharpness. Image-based metrics are based on the entire image and capture the perceptual similarity between a test

sample and an offset print sample. The study involved subjective evaluation of print samples at various resolutions (dots per inch) and grayscale levels. The study concluded that the smaller the edge jaggedness, the higher the perceived print quality. Also, the perceived print quality increased with increasing resolution and the introduction of grayscale filtering. Finally, the study found that there was no increase in perceived print quality with printer resolution and grayscale filtering and the measurement of edge sharpness.

Claim 1 has been amended to now include receiving a page description language (PDL) file that includes text and a text size value. A user-defined font sharpening threshold is received from a user, and a comparison is made between the text size value and the user-defined font sharpening threshold. A halftone screen is then selected based on the comparison. The Final Office Action states that Loce discloses a document created with an electronic authoring tool using a personal computer with the document including a text size specified by the user. A halftone screen is then selected based on this text size; thus, the text size functions as a user-define font sharpening threshold. Claim 1 as amended specifies that the text size value and the user-defined font sharpening threshold are received separately and are then compared to one another. These amendments clarify that the text size specified by the user when creating the document using the electronic authoring tool is distinct from the user-defined font sharpening threshold. In contrast, Loce discloses only a text size inputted by the user, not both a text size and a user-defined font sharpening threshold.

Ferrell is concerned with defining print quality metrics for use with machine vision systems. The machine vision systems measure characteristics of the text after the text is printed. Ferrell has nothing to do with selecting a threshold for determining the halftone screens used for printing. Therefore, Ferrell does not disclose a user-defined font sharpening threshold.

For at least these reasons, independent claim 1 is not made obvious by Loce and Ferrell. The subject matter of dependent claim 2 has been incorporated into claim 1 and, therefore, claim 2 has been canceled.

Claim 5 has been amended to now include that a rastor image processor generates a halftone image from a digital representation of objects to be printed. The objects include text, and the digital representation includes a text size. The rastor image processor then selects a halftone screen based on a comparison of the text size with a user-defined font sharpening threshold. These amendments clarify that the text size contained in the digital representation and the user-defined font sharpening threshold are distinct values. As discussed above for claim 1, Loce does not disclose both a text size and a user-defined font sharpening threshold.

For at least these reasons, claim 5 is not made obvious by Loce and Ferrell.

Claims 3, 4, 6, and 7 were rejected under 35 U.S.C 103(a) as being unpatentable over Loce in view of Ferrell in further view of U.S. Patent 7,079,287 (hereinafter Ng). Ng discloses methods for processing post rastor image processed gray level image data by subjecting the data to halftone screen processing, then analyzing each pixel of the halftone screen processed data to criterion to determine if the pixel is a saturated color image. If so, the pixel is modified before being output to a printer. Ng also discloses allowing user input to make minor color adjustments of the image after printing a proof print. In addition, Ng discloses a user-adjustable threshold input for gray enhanced anti-aliasing technology (GRET) processing.

Although Ng discloses a user input for making minor color adjustments and a user input for a GRET processing threshold, neither of these values is a threshold for selecting halftone screens. Ng teaches that the disclosed adjustments are made after the image data has been processed by the raster image processor (RIP): "The input image to the system is assumed to be a continuous-tone color separation (post-RIP rasterized image) after GCR (Gray Component Replacement) and UCR (Under Color Replacement) processings have already been applied."

(Col. 4, lines 42 – 46). In contrast, the present application states that "the RIP 12 performs color conversion, color correction, and halftoning as needed." (Page 8, lines 12 – 13). Because the halftone processing of the present application occurs **during the RIP process**, the font-sharpening threshold value must be entered prior to RIP processing. Because Ng teaches only **post-RIP** corrections, the user inputs of Ng cannot be font-sharpening thresholds for selection of halftone screens as taught by the present application.

Neither Loce, Farrell, nor Ng, either independently or in any combination, disclose each and every claim limitation of independent claim 1. Therefore, claim 1 cannot be found to be obvious over any combination of these references. For at least these reasons, dependent claims 3 and 4 are not obvious over Loce, Ferrell, and Ng.

Similarly, claim 5 as amended requires both a text size and a user-defined font sharpening threshold. As discussed above, the combination of Loce, Ferrell, and Ng does not disclose both of these values. For at least these reasons, dependent claims 6 and 7 are not obvious over Loce, Ferrell, and Ng.

In view of the above amendments and remarks, the Applicants submit that the present application is in condition for allowance and such action is respectfully requested. If any issues remain unresolved, the Applicant's attorney requests a telephone interview to expedite allowance and issuance.

Respectfully submitted,

COATS & BENNETT, P.L.L.C.

Dated: August 29, 2007

David D. Kalish
Registration No.: 42,706

P.O. Box 5
Raleigh, NC 27602
Telephone: (919) 854-1844
Facsimile: (919) 854-2084